

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

Claim 1 (Currently Amended) A metal oxide semiconductor (MOS) device comprising:
a semi-conducting substrate having source and drain regions;
a gate dielectric of less than 100 Å thickness on said semi-conducting substrate, said gate dielectric is selected from the group consisting of SiO_2 , ~~nitrided SiO_2~~ , Si_3N_4 , HfO_2 , ZrO_3 , Y_2O_3 , La_2O_3 , silicates or nitrogen additions of HfO_2 , ZrO_3 , or Y_2O_3 or La_2O_3 , and mixtures thereof; and
a gate formed of a metal comprising Re on top of said gate dielectric, said gate comprising Re has an interface trapped charge density of about $3 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$ to about $4 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$.

Claim 2 (Previously Presented) A metal oxide semiconductor device according to claim 1, wherein said gate dielectric has a thickness of less than 50 Å.

Claim 3 (Cancelled)

Claim 4 (Cancelled)

Claim 5 (Cancelled)

Claim 6 (Cancelled)

Claim 7 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is p-type or n-type.

Claim 8 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is formed of a material selected from the group consisting of silicon, SiGe, SOI, Ge, GaAs, and organic semiconductors.

Claim 9 (Original) A metal oxide semiconductor device according to claim 1, wherein said semi-conducting substrate is formed of silicon.

Claim 10 (Currently Amended) A field effect transistor (FET) comprising:
a semi-conducting substrate having at least one source and one drain region;
a gate dielectric layer of less than 100 Å thickness on said semi-conducting substrate,
said gate dielectric layer is selected from the group consisting of SiO_2 , ~~nitrided SiO_2~~ , Si_3N_4 ,
 HfO_2 , ZrO_3 , Y_2O_3 , ~~La_2O_3~~ , silicates or nitrogen additions of HfO_2 , ZrO_3 , or Y_2O_3 ~~or~~ La_2O_3 , and
mixtures thereof; and

a gate formed of a metal comprising Re on top of said gate dielectric layer, said gate
comprising Re has an interface trapped charge density of about $3 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$ to about $4 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$.

Claim 11 (Previously Presented) A field effect transistor according to claim 10, wherein
said gate dielectric layer has a thickness of less than 50 Å.

Claim 12 (Cancelled)

Claim 13 (Cancelled)

Claim 14 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is p-type or n-type.

Claim 15 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is formed of a material selected from the group consisting of silicon, SiGe, SOI, Ge, GaAs, and organic semiconductors.

Claim 16 (Original) A field effect transistor according to claim 10, wherein said semi-conducting substrate is formed of silicon.

Claim 17 (New) A metal oxide semiconductor (MOS) device comprising:

a semi-conducting substrate having source and drain regions;

a Hf-based gate dielectric of less than 100 Å on said semi-conducting substrate; and

a gate formed of a metal comprising Re on top of said Hf-based gate dielectric, said gate comprising Re has an interface trapped charge density of about $3 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$ to about $4 \times 10^{10} \text{ cm}^{-2} \text{ eV}^{-1}$.